Maintain Safe Clearances and Walkways

WAC 296-860-200

Summary

WAC 296-860-200

Maintain safe clearances and walkways

YOUR RESPONSIBILITY:

To prevent injuries and fatalities to employees by maintaining safe railroad clearances and walkways in your rail yards and plants.

You must

Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20010

Post warning signs and train employees about clearances approved before April 3, 1961

You must

(1) Post warning signs near tracks with clearances approved before April 3, 1961, so employees are aware of the minimal clearances and their potential hazards. The signs must:

- Be highly visible
- Be easy to read
- Alert employees to the danger of railway equipment operating on your yard and plant tracks.

(2) Include in your employee safety and health training information about:

- Any minimal clearances and their location
- Potential hazards associated with them
- The location of any clearance warning signs.

WAC 296-860-20020

Construct and maintain rail yard walkways for employee safety

Important:

- You have 2 years from October 01, 2002, (the effective date of this rule), to comply with the construction requirements of this section, unless the *department* determines during an inspection that your *walkways* create a serious safety hazard.
- If you aren't sure a serious safety hazard exists in your workplace, you can request a free consultation from the department by calling your local L&I office.

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Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20020 (Continued)

Construction of walkways:

You must

- Build walkways in rail yard areas where employees regularly work on the ground.
- Construct rail yard walkways that can be maintained in a safe condition:
  - With reasonably smooth walking surfaces
  - That won't interfere with track drainage.
- Use any of the following materials when constructing your walkway:
  - Crushed material that doesn't exceed 1 1/2 inches in size. For this rule, 1 1/2 inches in size means one of the following (percentages refer to weight measurement and sieve size standard in the industry):

Percentage of material passing through a sieve opening	Sieve opening size
100	1 1/2 inch square
90 - 100	1 inch square
40 - 80	3/4 inch square
15 - 60	1/2 inch square
0 - 30	3/8 inch square
0 - 10	#4
0 - 5	#8
0 - 0.5	#200

—Continued—

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Rules

WAC 296-860-20020 (Continued)

Smaller crushed material is preferred and should be used where drainage and durability isn't an issue. Crushed material that is 3/4 inch or less in size is recommended for switching leads in yards.

- Asphalt, concrete, planking, grating, or other similar material.
- Natural materials such as gravel or dirt.

You must

- Construct walkways wide enough for employees to safely perform their duties
- Construct walkways with a grade or slope in any direction with not more than one inch of elevation for each 8 inches of horizontal length, unless it is geographically impractical.

Maintenance of walkways:

You must

- Keep all walkways clear of vegetation, debris, mud, or other obstructions that create a potential hazard for employees.
- Remove all standing water from all walkways as soon as reasonably possible.
- Reopen walkways temporarily closed for a construction project within thirty days after the project is completed.
- Repair walkways that have been damaged and temporarily closed because of an *emergency* within 30 days after the emergency ends.

—Continued—

WAC 296-860-20020 (Continued)

Definition:

Emergency: Any unforeseen occurrence endangering life, limb, or property.

- Obtain a department variance before permanently removing any bridge or trestle walkway from use after September 1, 2002 (the effective date of this rule).

Note:

The requirements for filing a variance are located in the Safety and health core rules, chapter 296-350 WAC, and WISHA appeals, penalties, and other procedural rules.

Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20030

Install radiation detectors according to manufacturer's specifications

Important:

This section applies only to those private yards and plants where the installation of radiation detectors beside *railroad* tracks is required due to the nature of the business; for example, scrap metal yards.

You must

- Install radiation detectors beside the railroad tracks in your yard and/or plant according to the manufacturer's specifications.
- Post signs on each radiation detector installed less than 8 feet 6 inches from the centerline of the track:
  - Warning employees that the *side clearances* between the detector and the track centerline are less than the required standard minimum side clearances found in this chapter
  - Prohibiting employees from riding on the side of any rail car passing through the detector.

WAC 296-860-20040

Maintain overhead clearances

Exemption:

Engine houses and car shops are exempt from the *overhead clearance* requirements of this section.

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WAC 296-860-20040 (Continued)

You must

- Make sure overhead railroad clearances are at least 22 feet 6 inches unless a clearance requirement found in Table 1 applies.

Note:

Clearance requirements are based on the assumption that generally used rail equipment in private yards and plants is no more than ten feet ten inches wide by fifteen feet six inches high.

- WAC 296-860-10060 regulates the use of any rail equipment that exceeds the above dimensions.
- Minimum vertical clearances for all overhead wires are specified in Parts 1, 2, and 3 of the National Electrical Safety Code (NESC) as referenced in WAC 296-45-045, electrical workers safety rules, NESC applicable. See NESC 231 and 232.

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Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20040 (Continued)

Table 1 - Minimum Overhead Clearances for Buildings, Structures, Tunnels, and Bridges

If your overhead clearance involves	Then the minimum overhead clearance requirements are
An entirely enclosed building	18 feet when tracks end inside an entirely enclosed building. Also: ● The department must approve any reduction from 22 feet 6 inches before the reduction takes place. ● If an overhead clearance is less than 22 feet 6 inches, all cars, locomotives or other equipment must come to a full stop before entering the building. ● See Illustration 1.
All other structures	Defined by the half-circumference of a circle whose: ● Radius is 8 feet 6 inches AND ● Center is located on a line perpendicular to the track's centerline and 14 feet above the top of the highest rail. ● See Illustration 1.
Tunnels, over-crossings, and bridges	Defined by the half-circumference of a circle whose: ● Radius is 8 feet AND ● Center is located on a line perpendicular to the track's centerline and 14 feet 6 inches above the top of the highest rail. ● See Illustration 1.

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WAC 296-860-20040 (Continued)

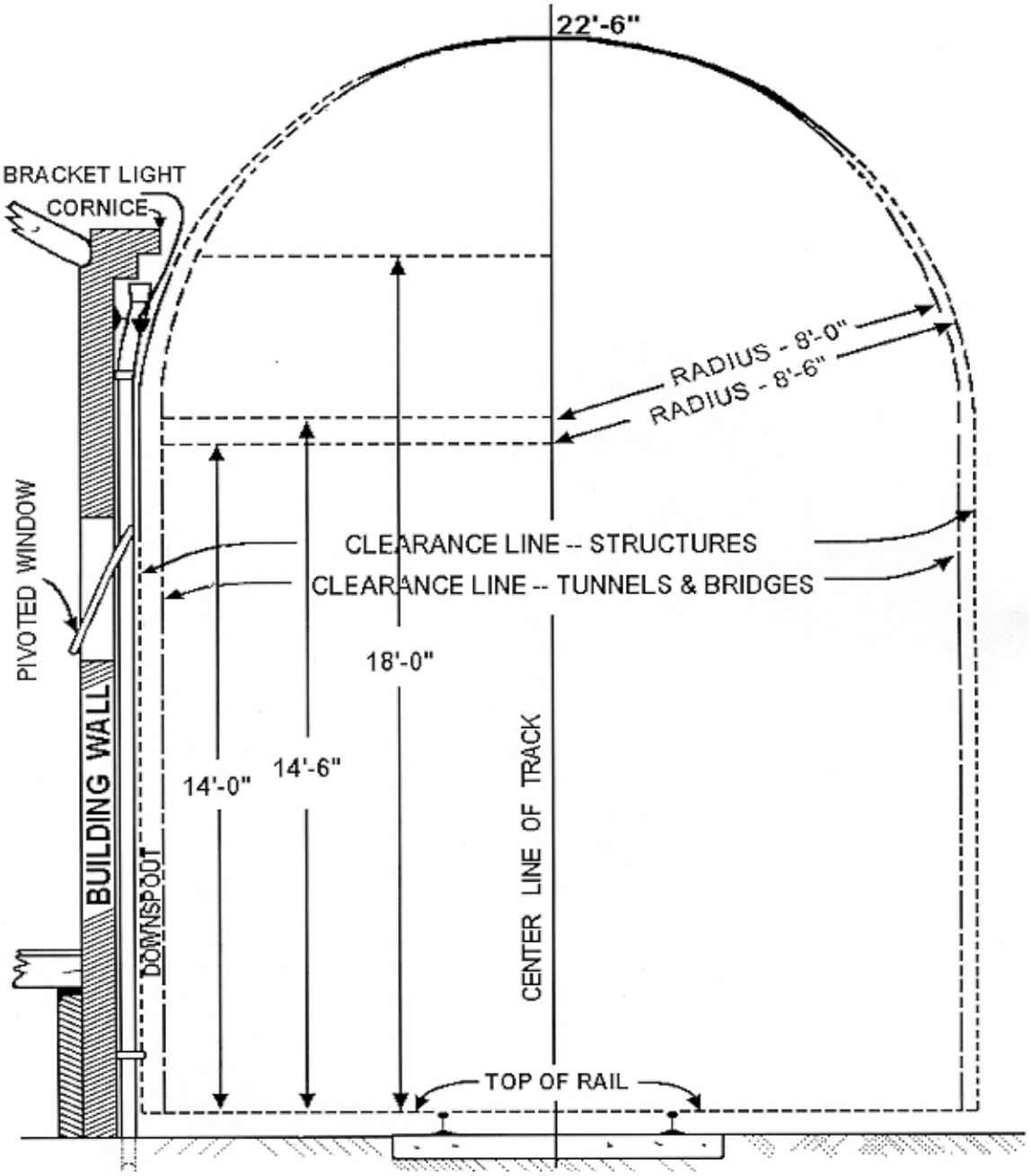

Illustration 1 – Minimum Overhead Clearances for Buildings, Structures, Tunnels, and Bridges

Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20050

Maintain side clearances

You must

- Make sure side clearances are at least 8 feet 6 inches from the track centerline unless clearance requirements found in Tables 2, 3, or 4 apply.

Note:

All side clearances in Tables 2, 3, and 4 that reference" the track centerline" are based on the assumption that private rail operations generally use track that is standard gauge width (4 feet 8 1/2 inches).

Table 2 - Minimum Side Clearance for Platforms

If Your Platform Type is	Then the Minimum Clearance Requirements Between the Track Centerline and a Platform Edge are
Type 1 Platforms with heights of 8 inches or less above the top of the rail.	4 feet 8 inches See Illustration 2
Type 2 Platforms with heights of 4 feet or less above the top of the rail.	7 feet 3 inches See Illustration 2
Type 3 Platforms with heights of 4 feet 6 inches or less above the top of the rail and the platforms are used primarily for loading and/or unloading refrigerator cars.	8 feet See Illustration 2
Type 4 Icing platforms and supports.	7 feet 3 inches See Illustration 2
Type 5 Retractable platforms attached to permanent structures.	When not in use, use the clearance requirements for a platform of its height.
Type 6 **Platforms that are a combination** of Types 1 through 3. (Only Types 1 through 3 platforms can be combined.)	**Platforms may be combined** if the Type 1 platform has a level surface no more than 4 feet 8 inches from the track centerline to the face of the platform wall with which it is combined.

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WAC 296-860-20050 (Continued)

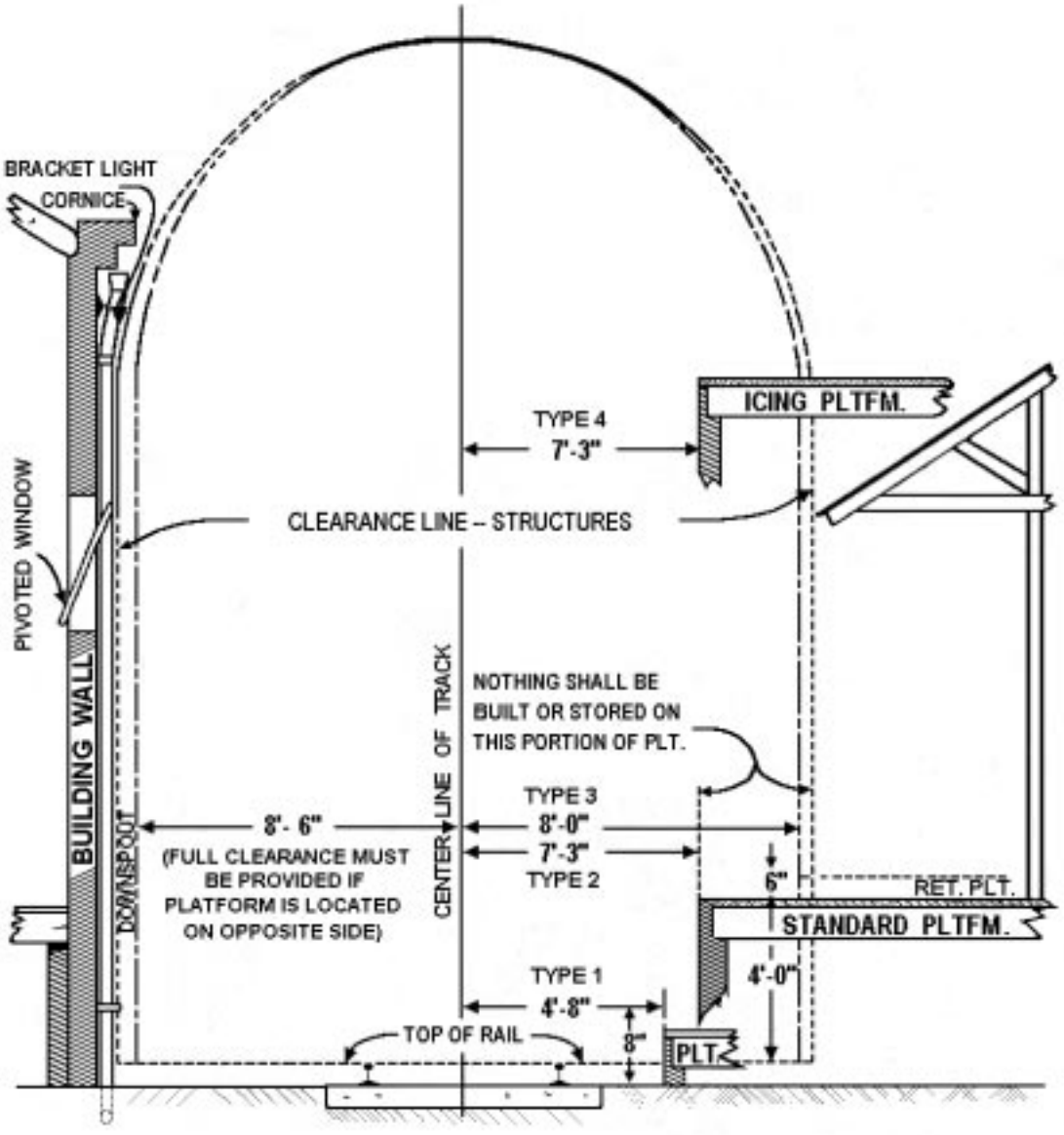

Illustration 2 – Minimum Side Clearances for Platforms

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Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20050 (Continued)

Table 3 - Minimum Side Clearances for Bridges, Tunnels and Related Structures

If your side clearance requirement involves	Then the minimum side clearance requirements between the track centerline and the bridge, tunnel or related structure are
Bridge and tunnel sides - lower section	8 feet
Bridge and tunnel sides - upper section	Defined by the half-circumference of a circle whose: ● Radius is 8 feet **AND** ● Center is located on a line perpendicular to the track's cernteline and 14 feet 6 inches above the top of the highest rail ● See Illustration 3.
Related structures on bridges and in tunnels - lower section structures (or portions of them) that are no more than 4 feet above the top of the rail. For example: ● Refuge platforms on bridges and trestles ● Water columns, oil columns, and block signals ● Cattle chutes	Defined by lines extending: ● 5 feet laterally from the track centerline to a point level with the top of the rail and then diagonally upward to another point 4 feet above the top of the rail **AND** ● 8 feet laterally from the track centerline to a point 4 feet above the top of the rail ● See illustration 3A. The shaded portion of the illustration designates the area that must be free of refuge platforms, water columns, oil columns, block signals and cattle chutes.
Hand rails and water barrels	7 feet 6 inches
Fences of cattle guards	6 feet 9 inches

Exemption:

- Except for handrail and water barrel clearances, the clearance requirements in Table 3 don't apply to bridge decks where railroad employees couple or uncouple cars on a switching lead unless the department approves them.

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WAC 296-860-20050 (Continued)

Note:

The requirements for filing a variance are located in the Safety and health core rules, chapter 296-350 WAC, and WISHA appeals, penalties and other procedural rules.

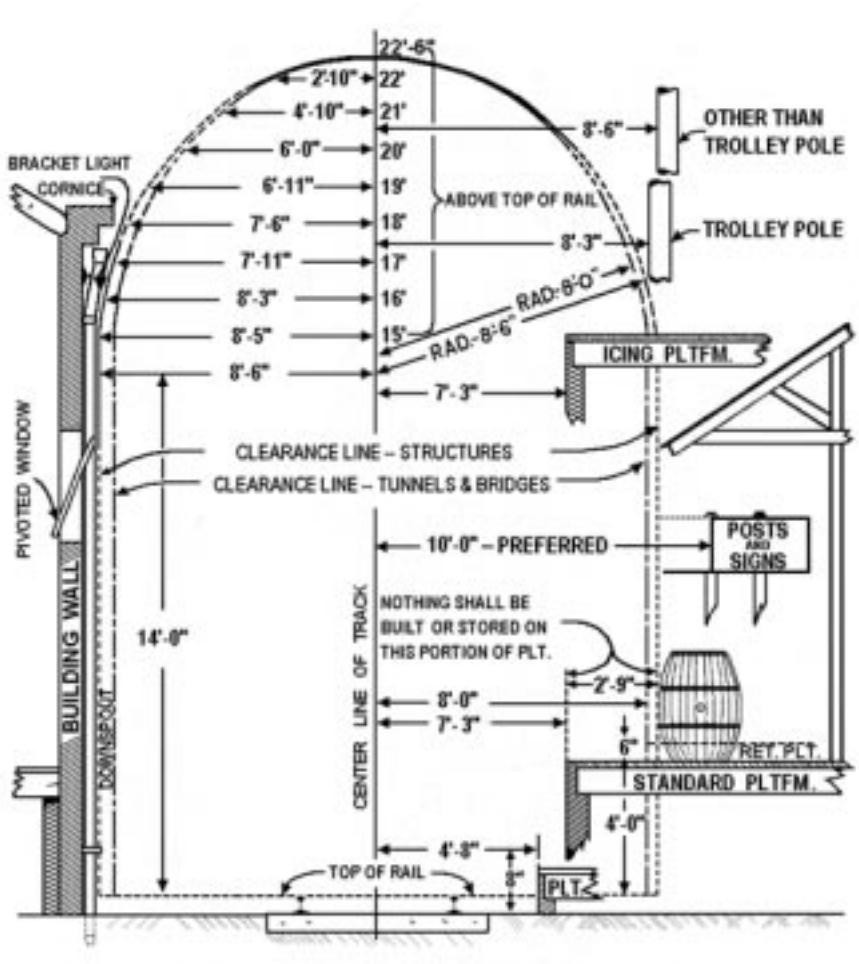

Illustration 3 - Minimum Side Clearances for Bridges, Tunnels, and Related Structures

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Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20050 (Continued)

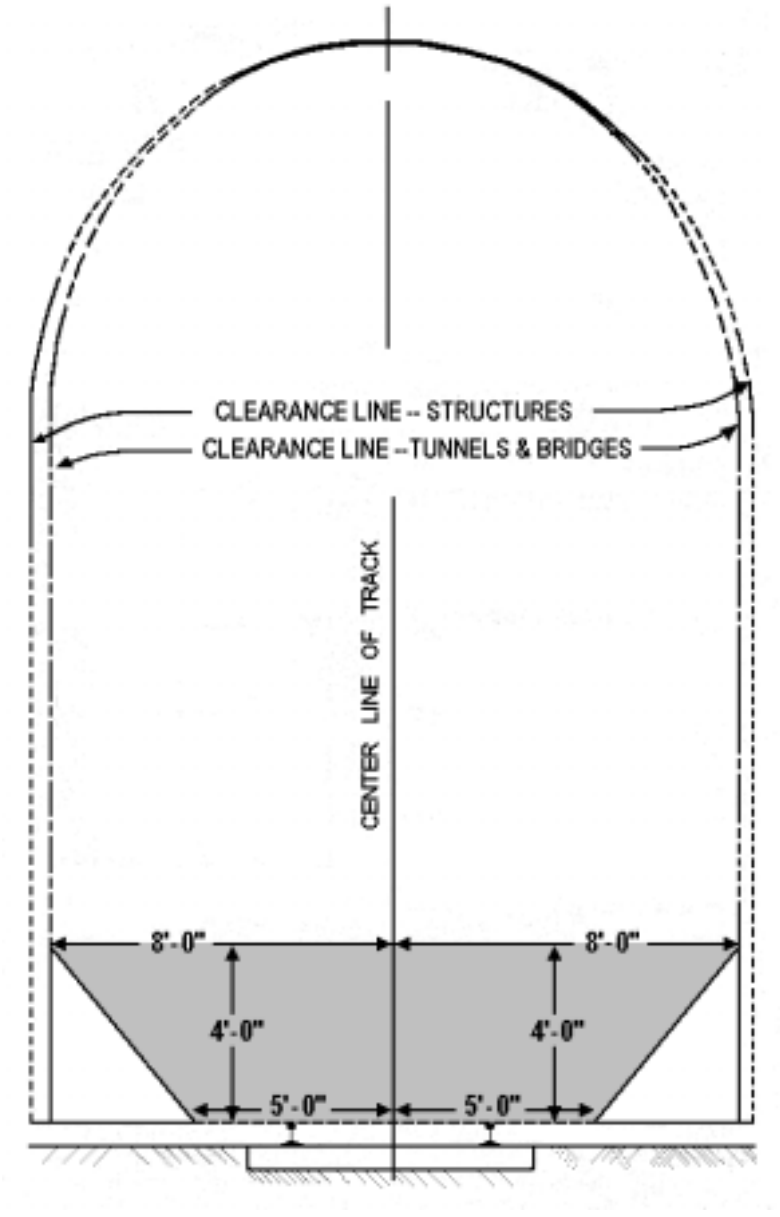

Illustration 3A – Minimum Side Clearances for Certain Structures in or on the Lower Sections of Bridges and Tunnels

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WAC 296-860-20050 (Continued)

Table 4 - Other Minimum Side Clearance Requirements.*

If your side clearance requirement involves	Then the minimum side clearance requirements from the track centerline are
Type A Engine house and car repair shop doors	7 feet 6 inches
Type B Interlocking mechanism, switch boxes, and other similar devices projecting no more than 4 feet above the top of the rail	3 feet
Type C Poles supporting trolley contact	8 feet 3 inches
Type D Signals and switch stands no more than 3 feet high and located between tracks where it isn't possible to allow other clearances required in this chapter	6 feet
Type E Signals and switch stands other than those described in Type B and Type D	8 feet
Type F Material, merchandise, inventory, storage bins or equipment stacked or stored on ground or platfroms adjacent to tracks	8 feet 6 inches Note: This requirement doesn't apply to: ● Railroad maintenance operations ● Emergency situations ● Local conditions that make compliance impossible
Type G Space adjacent to curved track.	Increased equal to tangent track clearances. As a general rule, side clearances on curved track should be increased 1-1/2 " for each degree of curvature.

*Table 4 doesn't have an accompanying illustration.

Note:

- The department must approve all minimum clearances for car pulling units and related structures.
- The requirements for filing a variance are located in chapter 296-350 WAC, WISHA administrative rules.

Maintain Safe Clearances and Walkways

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Rules

WAC 296-860-20060

Maintain clearances between tracks

You must

- Comply with the *track clearance* requirements in Table 5.

Table 5 - Minimum Standard Gauge Track Clearances

If your track clearance involves	Then the minimum clearance requirements between centerlines of standard gauge parallel tracks are
Main or passing tracks used for transporting cars, locomotives, motors, or like equipment	14 feet
Any tracks adjacent to main or passing tracks	15 feet
Team, house, or industry tracks	13 feet
Yard tracks	14 feet
Ladder and other tracks	20 feet

Note:

The following illustration will help you understand the track clearance requirements discussed in this section and WAC 296-860-10070 regulating narrow gauge rail operations.

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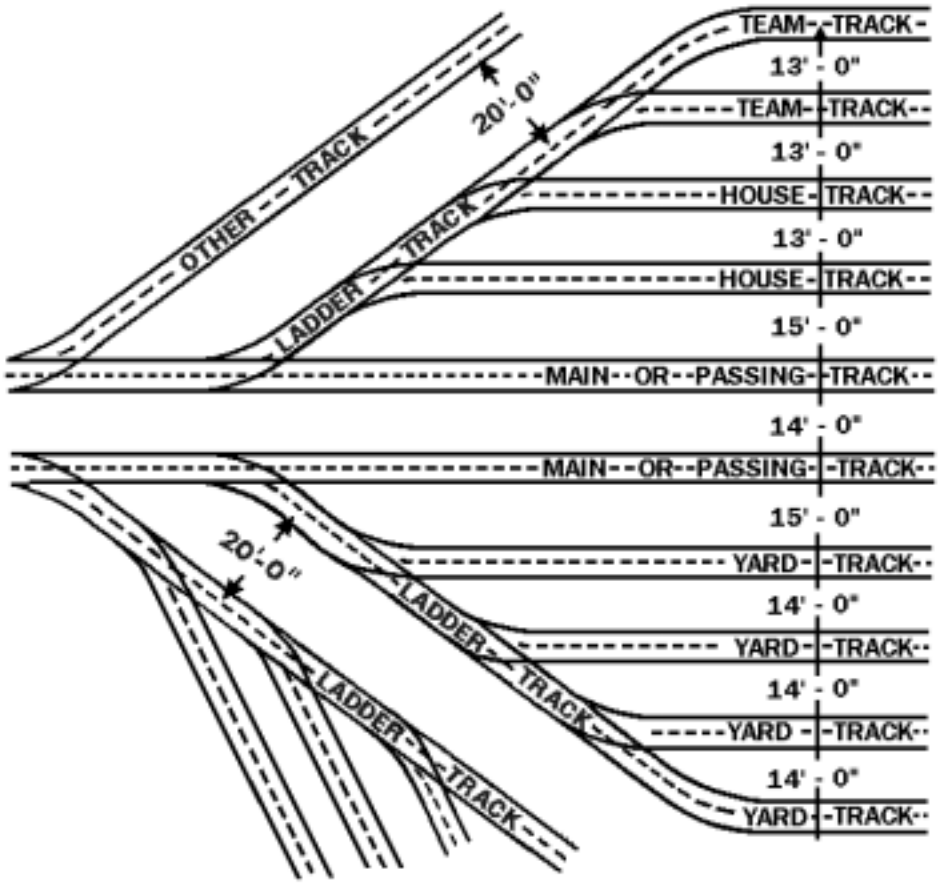
WAC 296-860-20060 (Continued)



Standard Gauge Track Clearances

Note:

Existing tracks may be extended at clearances lawfully prescribed prior to the effective date of this order.

Maintain Safe Clearances and Walkways

WAC 296-860-200

Rules

WAC 296-860-20070

Move excessive height or width rail car loads with care

Note:

This section regulates rail cars whose dimensions exceed ten feet ten inches wide by 15 feet 6 inches high.

You must

- Make sure your yard supervisor is given advanced notice regarding the arrival of any excess height or width cars so they can safeguard any employees working in the yard.
- Make sure no one is allowed to ride on the:
  - Roof of any excessive height car
  - Side of any excessive width car
  - Side of any car with a load extending more than 5 feet 5 inches from the car's centerline.

WAC 296-860-20080

Follow these requirements to conduct narrow gauge rail operations

You must

- Base your clearance measurements upon your widest narrow gauge cars.
- Make sure the distance between the cars and objects on narrow gauge track is equal to or greater than the distance required between ten foot ten inch wide cars and other cars or objects on standard gauge track.
- Comply with all other applicable requirements in this chapter.